

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/065574 A3

(51) International Patent Classification⁷: C12N 1/20

(21) International Application Number:
PCT/US2004/000737

(22) International Filing Date: 14 January 2004 (14.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/440,333 16 January 2003 (16.01.2003) US

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(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
4 November 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: BACTERIA FOR HIGH EFFICIENCY CLONING

(57) Abstract: Disclosed are novel bacterial hosts that are capable of high efficiency transformation with methylated and/or unmethylated nucleic acids, and that are bacteriophage resistant. Such bacteria contain: (1) an F' episome that confers high efficiency transformability; (2) one or more mutations that allow transformation of methylated nucleic acids; (3) one or more mutations that allow transformation with unmethylated nucleic acids; and/or (4) one or more mutations that confer resistance to bacteriophage infection. Also disclosed are methods for transforming such bacteria, and kits that contain such bacteria (*e.g.*, that have been made competent for transformation).

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/00737

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 1/20
US CL : 435/252.8

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 435/252.8

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,274,369 B1 (DONAHUE, JR. et al) 14 August 2001 (14.06.2001), see entire article.	1-12
A	US 5,248,605 (CHATTERJEE) 28 September 1993 (28.09.1993) see entire article.	1-12
A	US 5,538,864 (HILL et al) 23 July 1996 (23.07.1996), see entire article.	1-12
A	US 5,432,066 (KERN et al) 11 July 1995 (11.07.1995), see entire article.	1-12

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
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Date of the actual completion of the international search

21 August 2004 (21.08.2004)

Date of mailing of the international search report

15 SEP 2004

Name and mailing address of the ISA/US

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/00737

Continuation of B. FIELDS SEARCHED Item 3:

EAST, STN files Medline, Biosis, Caplus, Embase

search terms: transformation, efficiency, frequency, F', episome, phage resistance, methylation, mcr?, hsd?, tonA,